surface of the heart chamber, and delivering high frequency electrical energy to the two adjacent electrodes on the device, and measuring the temperature at a temperature sensor between the two electrodes, to form a first lesion and a second lesion continuous with the first lesion on the surface of the heart chamber.

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REMARKS

In the aforesaid Office Action, claims 1, 4-8, 13, 17-22 and 28 were rejected under 35 U.S.C. § 112, second paragraph, claims 23, 24 and 28 were rejected under 35 U.S.C. § 102(e) as being clearly anticipated by Panescu et al., claims 1, 2, 9-22 and 25-27 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Panescu et al. in view of Littmann et al., claims 4-6 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Panescu et al. in view of Littmann et al. and further in view of either Kohno et al. or Nashef et al., claim 8 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Panescu et al. in view of Littmann et al. and further in view of Fleischman, and claims 29 and 30 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Panescu et al. in view of either Kohno et al. or Nashef et al. Applicant notes with appreciation the indication that claim 7 would be allowable if rewritten in independent form and to overcome the rejections under 35 U.S.C. § 112, second paragraph. Claims 1, 2 and 4-30 are pending.

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The Examiner rejected claims 1, 4-8, 13, 17-22 and 28 under 35 U.S.C. § 112, second paragraph. Applicant has amended claims 1, 8, 13, 18, 20 and 28 to obviate the rejection.

Applicant has amended claim 23 to call for an electrode maximum outer diameter of about 1 to about 1.22 mm, an electrode length of about 2 to about 8 mm, and an interelectrode spacing of about 1 to about 2 mm. Support for these amendment can be found on page 16, lines 4-13.

The Examiner rejected claims 23, 24 and 28 under 35 U.S.C. §102(e) as being clearly anticipated by Panescu et al. However, none of the references disclose or suggest an electrophysiology catheter having a plurality of electrodes having an electrode maximum outer diameter of about 1 to about 1.22 mm, an electrode length of about 2 to about 8 mm, and an interelectrode spacing of about 1 to about 2 mm, and a temperature sensor between adjacent electrodes, as required by Applicant's claims. Panescu et al. discloses (at col. 6, lines 30-32) that the electrode diameter is about 4 to about 10 french (1.3 to about 3.33 mm) and the minimum diameter is about 1.35 mm when rigid electrode segments (i.e., "solid rings of conductive material" (col. 6, lines 1-2)) are used. Additionally, Panescu et al. discloses that the interelectrode spacing is not greater than 2.5 times the electrode diameter, for continuous lesion formation (col. 6, lines 22-24). In contrast, Applicant's device has an electrode maximum outer diameter of about 1 to

about 1.22 mm and an interelectrode spacing of about 1 to about 2 mm, with a temperature sensor between adjacent electrodes. This configuration facilitates lesion formation as discussed on page 5, line 13 to page 6, line 15, and is neither disclosed nor suggested by the references.

The Examiner rejected claims 1, 2, 9-22 and 25-27 under 35 U.S.C. § 103(a) as being unpatentable over Panescu et al. in view of Littmann et al., claims 4-6 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Panescu et al. in view of Littmann et al. and further in view of either Kohno et al. or Nashef et al., claim 8 under 35 U.S.C. § 103(a) as being unpatentable over Panescu et al. in view of Littmann et al. and further in view of Fleischman, and claims 29 and 30 under 35 U.S.C. § 103(a) as being unpatentable over Panescu et al. in view of either Kohno et al. or Nashef et al., stating, with regard to claims 4-6 and 29 and 30, that the addition of a conducting member to a temperature sensor to improve its performance is well known in the art as disclosed by Kohno et al. and Nashef et al., and Kohno et al. and Nashef et al. disclose the use of annular conducting bands as a design expedient. However, the references do not disclose or suggest an electrophysiology device having a metal band adjacent to and radially disposed about an outer surface of the temperature sensor and shaft. Kohno et al. discloses a small metal piece 35 bonded to an epoxy resin coated temperature sensor, which appears to be longitudinally disposed

relative to the temperature sensor. Therefore, Kohno et al. does not disclose radially disposing metal piece 35 about the temperature sensor. In the embodiment illustrated in Fig. 8, Kohno et al. discloses a metal ring 104 disposed about coiled heating wire 102. However, metal ring 104 is separated from the temperature sensor by the heating wire 102 and thus is not adjacent to and radially disposed about temperature sensor 103. Because Kohno et al. only discloses a metal ring 104 as a means of radiating thermally conductive heat (col. 7, lines 10-15) around annular heating wire 102, Kohno et al. does not teach or suggest a metal ring absent an annular heat generating member (such as the heating wire 102). Similarly, to the extent the reference is understood, Nashef et al. only discloses a metal band (i.e., "heat conducting material 28") adjacent to temperature sensor 22 and heating coil 26, as a heat dissipater, in the embodiment illustrated in Figs. 2-5. There is no teaching or suggestion to provide an annular metal band around the temperature sensor absent the annular heating coil 26. Therefore, none of the references disclose or suggest a metal band adjacent to and radially disposed about an outer surface of the temperature sensor and shaft. Moreover, new claim 32 calls for a jacket which is disposed about and in contact with the metal band, and which defines an outer surface of the electrophysiology device. None of the references disclose or suggest such a configuration.

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Applicant submits that the pending claims as amended define patentable subject matter and respectfully requests consideration and early allowance thereof.

Respectfully submitted,

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